



Amendment to the Specification:

Please replace the paragraph beginning at page 2 and ending at page 3 with following amended paragraph:

References Cited

U.S. PATENT DOCUMENTS

2,426,460 A	8/1947 Lewis
3,076,193 A	1/1963 Applebaum
5,351,053 A	5/1994 Wicks et al.
2,852,772 A	9/1958 Gitzendanner
2,426,460 A	12/1961 Langenwalter et al.
020,175,859 Pat Appl.	11/2002 Newberg et al.

OTHER PUBLICATIONS

D. G. Tucker, V. G. Welsby and R. Kendall, "Electronic Sector Scanning," *J. Brit. IRE*, vol. 18, August 1958.

D. E. N. Davies, "Radar Systems with Electronic Sector Scanning," *J. Brit. IRE*, vol. 18, December 1958.

D. G. Tucker, V. G. Welsby, L. Kay, M. J. Tucker, A. R. Stubbs and J. G. Henderson, "Underwater Echo-Ranging with Electronic Sector Scanning: See Trails on R.R.S. Discovery II," *J. Brit. IRE*, vol. 19, November 1959.

H. E. Shanks, "A New Technique for Electronic Scanning," *IRE Trans. Antennas and Propagation*, vol. AP-9, 1961.

H. V. Cottony and A. C. Wilson, "A High-Resolution Rapid-Scan Antenna," *J. Research NBS*, vol. 65D, January-February, 1961.

D. E. N. Davies, "A Fast Electronically Scanned Radar Receiving System," *Br. Inst. Radio Eng. J.*, vol. 21, 1961.

P. V. Howells, "MOSAR-Array Multiplex Beamforming Technique," Symposium Record, 9th Ann. Radar Symposium. (University of Michigan, Ann Arbor), June 1963.

D. E. N. Davies, "The Application of Electronic Sector Scanning techniques to Height-Finding Radar Systems," *IEE Conf. Electron. Res. Dev. Civil Aviation*, October 1963.

W. H. Kummer, A. T. Villeneuve and F. G. Terrio, "Scanning without Phase Shifters," *Electronics*, vol. 36, March 29, 1963.

D. E. N. Davies, "Beam-Positioning Radar Systems Utilizing Continuous Scanning Techniques," Proc. IEE, vol. 112, no. 3, 1965

M. A. Johnson, "Phased-Array Beam Steering by Multiplex Sampling," Proc. of the IEEE, vol. 56, no 11, 1968.

A. K. Edgar and I. L. Jones, "Flood-Lighting with Nyquist Rate Scanning," AGARD Conf. Proc., no. 66, 1970.

M. F. Radford and R. Greenwood, "A Within-Pulse Scanning Height-Finder," IEE Conf. On Radar and Future, no. 105, 1973.

D. E. N. Davies, "High Data Rate Radar Incorporating Array Signal Processing and Thinned Arrays," IEEE Int. Radar Conf., 1975.

S. Haykin, "Performance Analysis of a Radar Signal Processing System with Continuous Electronic Array Scanning," 1977, from "Array Processing Applications to Radar," Benchmark Paper in Electrical Engineering and Computer Science, vol. 22, 1980.

"Countermeasures. A Technical Evaluation of the Operational Effectiveness of the Planned US National Missile Defense System," April 2000, from Union of Concerned Scientists, MIT Security Studies Program, <http://www.ucsusa.org/publication.cfm?publicationID=345>

Nicodimus Retdian, Shigetaka Takagi, Nobuo Fujii, "Voltage Controlled Ring Oscillator with Wide Tuning Range and Fast Voltage Swing", <http://www.ap-asic.org/2002/proceedings/4A/4A-5.PDF>

ABSTRACT

An ultra-high resolution radar system and technique for transmit or receive AESAs or that yields performance substantially greater than, that of conventional radar systems and techniques while being simple and inexpensive to manufacture. The device comprises the transmit/receive AESA or AESAs steering beam or beams non-depressively, and creating RF FM modulated pulse signals of identical shape and duration through a resistive multiport voltage dividers electrically connected VCOs, RF mixers and STALO or any other narrow-band or wide-band source of RF signals, and to a plurality of radiating elements in order to generate signals providing simultaneously the required beam or beams azimuth and elevation steering electronically and receiving target-echo return pulse signals.